

#### IV. REMARKS ON THE AMENDMENTS

##### **Remarks on the Amendment to the Specification:**

Various paragraphs were amended to correct clerical errors. For example several paragraphs were amended to correct the spelling of carboxypeptidase to carboxypeptidase. In these cases, brackets [] were used to indicate deletion of the "e" since a strikethrough "e" is not easily perceived. (See 37 C.F.R. § 1.121(b)(1)(ii) for the use of brackets)

Various other paragraphs were amended to avoid confusion where the same variable was used differently. For example, X was used in some cases to mean "O or S" and in other cases X (i.e. in the structure "RP-X-LK-Y-RG") was used to signify a bond. Where X was intended to mean "O or S", X is now X'. Similarly, Z was used in various paragraphs. As appropriate, Z', Z'' and Z''' are now also used for clarity.

An amendment to the text of page 14 is requested since it has been determined that the patent identified was incorrectly referenced.

##### **Remarks on the Amendment to the claims:**

Claims 54-70 are canceled in response to the restriction requirement.

Claim 71 is newly presented as a substitute to claim 1 as per discussions occurring on December 8, 2005 at the interview discussed below. Antecedent basis for this amendment can be found throughout the specification but in particular at page 45, line 21 to page 46, line 2 and page 49, line 8 to page 53, line 14.

Claim 72 is presented as a new method claim that includes all the compound limitations of claim 71. Because it includes all the compound limitations of claim 71, it is believed that claim 72 can be properly rejoined under *In re Ochiai*, 71 F.3d 1565, 37 U.S.P.Q.2d 1127 (Fed Cir. 1995) even if the Office determines that restriction is proper. Antecedent basis for claim 72 can be found throughout the specification but in particular at page 23, line 26 to page 25, line 32.

The amendments to other claims have been made to, *inter alia*, correct for dependencies, correct for punctuation and make the claims consistent with amendments to the specification (i.e. change X to X' and Z to Z', Z'' or Z'''). Other amendments are made to clarify the claim language.

It is believed that no new matter has been added.

## V. FORMAL MATTERS

### 1. Interview

The Examiner (Nyeemah Grazier) and her supervisor (Dr. Kamal Saeed) are thanked for the courtesy extended to Applicant's representative during the interview on December 8, 2005. Comments contained in this submission memorialize those discussions. (See: 37 C.F.R. § 1.133)

### 2. Information Disclosure Statements

Return of the signed PTO-1449 forms filed on August 5, 2004 and December 27, 2004 is acknowledged. The Examiner is thanked for return of these documents. Review of these documents revealed that two of the references were not considered. Reference EP 990047 B1 (Ref. BO) is resubmitted for review in a new Information Disclosure Statement discussed below. The corresponding US Patent application (US 2005-0049406 A1 - in English) related to WO03/040288 (Ref. BL) is also submitted in the new Information Disclosure Statement. Additional references are also submitted for review. The Examiner is requested to review these references and return the PTO-1449 with the next Office correspondence.

### 3. New Information Disclosure Statement

As discussed above, two references are resubmitted for consideration in a new IDS. One or more additional references may also be presented. Review of these documents and return of the executed PTO-1449 with the next Office communication is respectfully requested.

## VI. RESTRICTION REQUIREMENT

In response to the telephone request by Examiner Grazier on September 8, 2005, attorney Gildea did make a provisional election, **with traverse**, of Group I, claims 1-53. Because an election of a particular species was required in response to the restriction

requirement (37 U.S.C. §1.146), compound I in Figure 1A was provisionally elected as a species of the claimed genus (e.g. see claim 1).

At pages 2-9 of the present Office Action, the rationale supporting the restriction requirement is set forth. As articulated, the restriction requirement appears to be based upon a two-tier analysis. First, claims 1-70 are restricted into two groups of claims (i.e. Group I, claims 1-53 and Group II, claims 54-70) and then, the election of species is used as a basis to further limit the subject matter within specific claims by way of an objection, finally articulated at page 16 (i.e. the second tier). At the second tier (i.e. restriction within specific claims) the argument seems to imply that improper Markush grouping has been used (OA at page 3). Regardless, restriction is asserted as being proper under 35 U.S.C. § 121. (*Id.*). Applicants respectfully traverse the restriction requirement, in part, for the following reasons.

Applicants do not traverse the restriction between Groups I and II. Accordingly, claims 54-70 are canceled in the amendment set forth above.

However, Applicants do traverse the remainder of the restriction requirement. Specifically, Applicants challenge all assertions that either the claims contain improper Markush grouping or that restriction under 35 U.S.C. 121 can properly be used to require Applicants to amend individual claims to thereby cancel non-elected subject matter. As will be discussed in more detail below, it is respectfully submitted that the decisions in *In re Weber* and *In re Haas* prohibit such action by the Office. While it is noted that the cancellation of claim 1 coupled with the submission of new claim 71 may render moot certain aspects of the argument presented below, this argument is intended to address the full scope of the restriction requirement so that Applicants may preserve their right to petition for reconsideration of the entire scope of restriction requirement. (See: 37 C.F.R. § 1.144 or 1.181)

In *Weber*, the court reasoned that if the Office could restrict subject matter within a single claim, such claims would never be examined on their merits. *In re Weber*, 580 F.2d 455, 458, 198 U.S.P.Q. 328, 331 (CCPA, 1978) Consequently, *Weber* holds that:

*“It is apparent that § 121 provides the Commissioner with the authority to promulgate rules designed to Restrict an Application to one of several claimed inventions when those inventions are found to be “independent and distinct”. It*

*does not, however, provide a basis to an examiner acting under the authority of the Commissioner to Reject a particular Claim on that same basis."*

( *In re Weber*, 580 F.2d 455, 458, 198 U.S.P.Q. 328, 331-332 (CCPA, 1978))

***"We hold that a rejection under § 121 violates the basic right of the applicant to claim his invention as he chooses." (emphasis added).***

(*Weber* at 459, 198 U.S.P.Q. at 332 (CCPA, 1978))

Accordingly, it is clear from *In re Weber* that the legal issue of whether or not the Office may impose a restriction requirement and thereby refuse to examine subject matter within the scope of a single claim so restricted has been decided against the Office. It is well settled that such requirements violate 35 U.S.C. § 112, where the applicant is statutorily entitled to claim his invention as he deems proper, notwithstanding 35 U.S.C. § 121. **This is true whether or not the single claim comprises two or more independent and distinct inventions.**

At page 3 of the Office Action, it is asserted that restriction of a Markush group is proper where the compounds within the group either (1) do not share a common utility, or (2) do not share a substantial structural feature disclosed as being essential to that utility. Citation is made to *In re Harnisch* 631 F.2d 716, 206 USPQ 300 (CCPA) and *Ex Parte Hozumi*, 3 USPQ2d 1059 (BPAI 1984). While *In re Harnisch* acknowledged that restriction within a single claim could be required where a Markush group lacks unity of invention, it is respectfully submitted that the Office Action fails to establish that improper Markush grouping is present in claims 1-53.

As a preliminary matter, Applicants note that claim 1 is a generic claim and does not use Markush format. Moreover, the Office Action properly recites that *"Absent evidence that subject matter of the Markush-type claim lacks unity of invention, the Office may not merely refuse to examine that which applicants regard as their invention."* (OA at page 3) Reference is also made to page 8 of the Office Action wherein the Examiner acknowledges that under the practice sanctioned in MPEP 803.02, which addresses the possibility of multiple inventions within a single claim, examiners are instructed to first examine the elected invention and if it is determined to be patentable and then to continue the search and examine other subject matter within that claim to determine

whether the subject matter in the claim, as a whole, is patentable. M.P.E.P § 803.02. Moreover, the mandate of M.P.E.P. 803.02 does not sanction the required amendment of single claims except where prior art is found that would prohibit that allowability of a Markush type claim, as drafted. Because no 35 U.S.C. § 102 or 35 U.S.C. § 103 rejections have been articulated in the present action, it seems that M.P.E.P § 803.02 mandates that the entirety of the claimed subject matter be searched unless prior art is found that would require an amendment of the claimed subject matter.

Notwithstanding these facts, the present Office Action states: *"Claims 1-17, 19-30, 32-43, 45-53 are objected to as containing non-elected subject matter. To overcome this objection, Applicant should rewrite instant Claims in independent form including all of the limitations of the base claim and any intervening claims and if rewritten directed solely to the elected subject matter indicated as being examinable."* (emphasis added in underlined text, OA at page 16). For the reasons stated, it is believed that such an rejection, and related objection, is improper, and indeed conflicts with the decisions in *Weber*, 580 F.2d 455, 198 U.S.P.Q. 328 (CCPA, 1978), *Haas* 198 USPQ 334 (CCPA, 1978) as well as *Harnisch*, 631 F.2d 716, 722, 206 U.S.P.Q. 300, 305 (CCPA, 1980). Reconsideration of the restriction requirement and withdrawal of the rejection and above cited "objection" is respectfully requested.

While it is noted that at page 8, the Office Action asserts that *"... the compounds are withdrawn as being non-elected subject matter that differs materially in structure and composition"* (OA at page 8) it is believed that the claimed subject matter possesses a "common utility" and thereby possesses "unity of invention". *Id.* at 722, 206 U.S.P.Q. at 305. In the present case, it is respectfully submitted that the specification clearly states that the compositions can all be used as labeling reagents (i.e. the common function) for multiplex analysis of one or more analytes in the same sample, or in two or more different samples (Specification at page 49, lines 8-15). Moreover, the structure of these compounds is fixed as an active ester compound that is a 5, 6 or 7 membered heterocyclic ring comprising a ring nitrogen atom that is N-alkylated with a substituted or unsubstituted acetic acid moiety to which the alcohol moiety of the active ester is linked through the carbonyl carbon of the N-alkyl acetic acid moiety (i.e. the single structural similarity), wherein the compound is isotopically enriched with one or more heavy atom isotopes (Specification at page 50, lines 18-23 and claim 1). Because the present claims

comply with the requirements of unity of invention as articulated in *Harnisch*, it is believed that they recite a proper Markush group.

Because the restriction requirement is yet to be made final, no petition for review under 37 C.F.R. § 1.144 can be filed. Moreover, it is believed that the amendment offered by Applicants eliminates many of the concerns articulated by the Examiner and her supervisor in during the interview on December 8, 2005. However, to the extent that the Office maintains that further restriction and amendment of claim 71 is proper, Applicants traverse such action for the reasons stated above.

## VII. RESPONSE TO THE OFFICE ACTION REJECTIONS

### **1. Rejection For Obviousness-Type Double Patenting**

As discussed during the interview on December 8, 2005, since both patent applications remain pending, claims of one or both applications can be amended and/or canceled. Accordingly, this provisional rejection should be held in abeyance until such time as both patent applications contain allowable subject matter or in the alternative until this application is determined to have otherwise allowable subject matter. At such time, Applicants can reconsider the requirement for a terminal disclaimer.

### **2. Rejection Under 35 U.S.C. § 112, first paragraph**

Section 2163 of the M.P.E.P (which addresses rejections under 35 U.S.C. § 112, first paragraph) states: "*A description as filed is presumed to be adequate, unless or until sufficient evidence or reasoning to the contrary has been presented by the examiner to rebut the presumption.*" (M.P.E.P § 2163.04). "*The examiner, therefore, must have a reasonable basis to challenge the adequacy of the written description.*" (*Id.*) "*The absence of definitions or details for well-established terms or procedures should not be the basis for a rejection under 35 U.S.C. § 112, para. 1, for lack of written description.*" (M.P.E.P. § 2163(II)(A)(1)) For example, the well-established term "nail" need not be defined in a patent pertaining to an article of manufacture unless the Applicant intends that the term to mean something other than its well-established definition (e.g. for the term "nail" to also mean "staple").

At page 15, the Office Action asserts that: "*The variable "PG" in claims 41 and 49 is not defined in the Specification sufficiently to ascertain the structure of the protection group.*" However, according to the M.P.E.P § 2163(II)(A)(1), the specification need not define or

provide details for a well-established term. Consequently, evidence that "amine protecting group" is a well-established term precludes the appropriateness of the asserted rejection particularly since the application is presumed to be adequate as filed.

According to the specification, "*PG is an amine protecting group*" (Specification at page 52, lines 20-21). The specification also refers to Green et al., *Protecting Groups In Organic Synthesis*, Third Edition, John Wiley & Sons, Inc. New York, 1999 as a reference source for examples of amine, hydroxyl and thiol groups (Specification at page 35, lines 23-26). Pages 494-653 of the Green et al. reference describes examples of amine protecting groups commonly used in organic synthesis. These pages, which are submitted in the new IDS filed with this Office Action response, are evidence that "amine protecting group" is a well-established term of art of organic chemistry. Therefore, it need not be defined or commented on in detail in the specification.

Other evidence that "amine protecting group" is a well-established term can be found by searching just the claims of patents searchable on the United States Patent & Trademark Office website ([www.uspto.gov](http://www.uspto.gov)). The results of a search performed on November 30, 2005 (Attached as Exhibit A-1) revealed 186 US Patents containing "amine protecting group" as a claim term. A definition for "protecting group" obtained from the *Dictionary of Biochemistry and Molecular Biology*, Second Edition, John Wiley & Sons, Inc. New York, 1989 is also submitted as Exhibit A-2. From this definition and the structure at page 52, it is self evident that an amine protecting group would be any protecting group that protects the illustrated amine group of the heterocyclic ring. Taken together, it is respectfully submitted that the evidence demonstrates that "amine protecting group" is a well-established term.

While it is noted that the Examiner's supervisor (Examiner Kamal Saeed) argued at the interview of December 8, 2005 that in his experience some patent applicants will defined "protecting group" in their specifications to include groups (for example hydrogen) not typically considered by the ordinary practitioner to be a protecting group, it is respectfully submitted that such argument is irrelevant and off point. An applicant can be his own lexicographer. M.P.E.P. § 2173.01. In fact, it is imperative that an applicant define a term or phrase where he intends it to have other than its common meaning else his claim containing said term or phrase will not be interpreted as he

intends. While those definitions provided by an applicant in his specification (i.e. Applicant acting as his own lexicographer) are appropriate for understanding the scope of the claims of his application (i.e. where applicant is his own lexicographer), they are irrelevant to the interpretation of all other patent applications such as the present application. This is obvious because, as stated in the M.P.E.P sections quoted above, there is no requirement that the specification define well-established terms where Applicant intends to avail himself/herself of that common meaning. Since the evidence demonstrates that "amine protecting group" is well-established in the organic chemistry art, such as "nail" is well-established in the article of manufacture art, the assertion that Applicants must define "amine protecting group" is clearly erroneous.

Accordingly, it is submitted that the rejection under 35 U.S.C. 112, first paragraph for use of "PG" in claims 41 and 49 is inappropriate in view of the evidence. In fact, the Examiner has submitted no evidence whatsoever suggesting that "amine protecting group" is not well-established. Thus, reconsideration and withdrawal of the rejection under 35 U.S.C. § 112, first paragraph is respectfully requested.

### **3. Rejection Under 35 U.S.C. § 112, second paragraph**

At page 15 of the Office Action, claims 41-53 are rejected as being indefinite for the reasons stated in the 35 U.S.C. § 112, first paragraph rejection. For the reasons stated above, it is believed that "PG" is defined in Applicant's specification using a well-established term (i.e. amine protecting group). Therefore, it is submitted that claims 41-53 comply with 35 U.S.C. § 112, second paragraph. Reconsideration and withdrawal of the rejection is respectfully requested.

At page 15 of the Office Action, claims 1, 15, 23, 28, 36, 41 and 49 are rejected under 35 U.S.C. § 112, second paragraph as being indefinite because the claims represent an "omnibus type claim". Omnibus (adjective) is defined in the Merriam-Webster OnLine Dictionary ([www.m-w.com](http://www.m-w.com)) as 1) of, relating to, or providing for many things at once; and 2) containing or including many items (see attached Exhibit B). It seems that by this characterization, the Examiner is asserting that the claims are broad in scope.

According to M.P.E.P. § 2173.04, "*Breadth of a claim is not equated with indefiniteness*". Accordingly, it is respectfully submitted that the assertion claims 1, 15, 23, 28, 36, 41 and



49 are indefinite because they "include many items" (i.e. are broad) is not recognized as a valid rejection. Regardless, claim 1 has been canceled and new claim 71 presented for examination. Moreover, claims 15, 23, 28, 36 and 41 have been amended.

Reconsideration and withdrawal of the rejection is respectfully requested.

At page 15-16, bridging paragraph, the Office Action suggests that claim terms such as "heterocyclic ring", "active ester", "leaving group" and "amine protecting group" need to be defined in light of the scope of the elected subject matter. For reasons previously argued, it is believed that the restriction requirement is flawed and that the objection set forth on page 16 should be withdrawn. It is also respectfully submitted that these are well-established terms. Definitions and other evidence of the use of these well-established terms in the claims of issued US patents are presented in Exhibits A-1, A-2, C-1, C-2, D-1, D-2, E-1 and E-2 (attached). With respect to the terms "active ester" and "leaving group", further reference is also made to the specification at page 8, line 6 to page 9, line 2 as well as to page 50, lines 12 to 16. Regardless, claim 1 has been canceled and new claim 71 presented for examination. Moreover, claims 15, 23, 28, 36 and 41 have been amended. Reconsideration and withdrawal of the rejection is therefore respectfully requested.

#### VIII. SUMMARY

It is believed that this response addresses all rejections set forth in the present Office Action and the application is in ready condition for allowance. In consideration of the preceding amendments and remarks, Applicants hereby respectfully request reconsideration of all pending claims, the withdrawal of all rejections set forth in the present Office Action and issue of a Notice of Allowance by The Office.

#### IX. INTERVIEW

If the Examiner believes a telephonic or personal interview would advance the prosecution of the subject application, the Examiner is invited to contact attorney Gildea during business hours at the telephone or facsimile numbers listed below.

X. FEES

A new IDS and authorization to deduct the appropriate fee from Deposit Account 01-2213 for consideration of said IDS is being submitted herewith. Because the amendment set forth herein does not increase the claim count beyond that already on record, it is believed that there is no requirement for the payment of any additional fee. Because this response is being filed within the shorted statutory period for response, again it is believed that no fee is required for consideration of this response by the Office. If however, The Office determines that any fee is properly due for its consideration of this paper, authorization is hereby granted to charge any required fee associated with the filing or proper consideration of this paper to Deposit Account 01-2213 (Invoice No. BP0207-US3).

XI. CORRESPONDENCE/CUSTOMER NUMBER


Please send all correspondence pertaining to this document to:

Brian D. Gildea, Esq.  
Applied Biosystems  
500 Old Connecticut Path  
Framingham, MA 01701  
Telephone: 508-383-7632  
Fax: 508-383-7468  
Email: brian.gildea@appliedbiosystems.com

IF NOT ALREADY DONE, PLEASE ASSOCIATE THIS CASE WITH CUSTOMER NUMBER

**23544**

Respectfully submitted  
on behalf of Applicants,



Brian D. Gildea, Esq.; Reg. No. 39,995

Dec 19, 2005

Date